

Application No. 09/830,488

Attorney Docket No. RXSD 1001-3

In the claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1 1-132. (Canceled).

1 133. (Original) A device for producing customized audio data, comprising:  
2 data storage storing an audio data product and  
3 a hearing profile of a customer for the audio data product; and  
4 logic to produce a customized audio data product in response to the hearing profile and  
5 the audio data product.

1 134. (Original) The device of claim 133, including:  
2 an interface by which the customized audio data product is received from a remote site.

1 135. (Original) The device of claim 133, including:  
2 logic to store the customized audio data product on a machine readable medium.

1 136. (Original) The device of claim 133, wherein the customized audio data product comprises  
2 at least a portion of the hearing profile, and the audio data product for transformation according  
3 to the hearing profile at a remote site.

1 137. (Original) The device of claim 133, wherein the customized audio data product comprises  
2 a transformation according to the hearing profile of the audio data product.

1 138. (Original) The device of claim 133, wherein the customized audio data product comprises  
2 a transformation according to the hearing profile of the audio data product, and a parameter used  
3 for decoding the transformation.

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1 139. (Original) The device of claim 133, wherein the customized audio data product comprises  
2 a transformation according to the hearing profile of the audio data product, and a parameter  
3 associated with the customer used for decoding the transformation.

1 140. (Original) An article of manufacture comprising:  
2 a data storage medium configured for connection to, and for disconnection from, an audio  
3 playback device; and  
4 a customized audio data product stored in the data storage medium, the customized audio  
5 data product comprising an audio data product customized in response to a hearing profile of a  
6 customer.

1 141. (Original) The article of claim 140, wherein the customized audio data product comprises  
2 a transformation according to the hearing profile of the audio data product, and a parameter for  
3 identification of the customer.

1 142. (Original) The article of claim 140, wherein the customized audio data product comprises  
2 at least a portion of the hearing profile, and the audio data product for transformation according  
3 to the hearing profile.

1 143. (Original) The article of claim 140, wherein the customized audio data product comprises  
2 a transformation according to the hearing profile of the audio data product.

1 144. (Original) The article of claim 140, wherein the customized audio data product comprises  
2 a transformation according to the hearing profile of the audio data product, and a parameter used  
3 for decoding the transformation.

1 145. (Original) The article of claim 140, wherein the customized audio data product comprises  
2 a transformation according to the hearing profile of the audio data product, and a parameter  
3 associated with the customer used for decoding the transformation.

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1 146. (Original) An audio data playback device comprising:  
2 a data processor;  
3 a data storage medium, coupled to the data processor;  
4 an audio transducer, coupled to the data processor; and  
5 a customized audio data product stored in the data storage medium, the customized audio  
6 data product comprising an audio data product customized using a hearing profile of a customer.

1 147. (Original) The audio data playback device of claim 146, wherein the audio transducer  
2 comprises a speaker mounted on a headset.

1 148. (Original) The audio data playback device of claim 146, wherein the audio transducer  
2 comprises stereo speakers mounted on a headset.

1 149. (Original) The audio data playback device of claim 146, wherein the customized audio  
2 data product comprises the audio data product transformed according to the hearing profile, and  
3 a parameter for identification of the customer.

1 150. (Original) The audio data playback device of claim 146, wherein the customized audio  
2 data product comprises a transformation according to the hearing profile of the audio data  
3 product, and a parameter associating the customized audio data product with the customer, and  
4 the data processor includes decoding logic responsive to the parameter for playing the  
5 customized audio data product.

1 151. (Original) The audio data playback device of claim 146, wherein the customized audio  
2 data product comprises at least a portion of the hearing profile, and the audio data product for  
3 transformation according to the hearing profile, and the data processor includes decoding logic  
4 responsive to said at least a portion of the hearing profile for playing the customized audio data  
5 product.

1 152. (Original) An audio testing device comprising:  
2 a data processor;

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3 a data storage medium, coupled to the data processor;  
4 a communication port, coupled to the data processor;  
5 an audio transducer, coupled to the data processor; and  
6 at least a portion of a hearing test program stored in the data storage medium, the hearing  
7 test program comprising routines for execution of a hearing test using the communication port  
8 and the hearing test program to produce hearing profile data of a customer.

1 153. (Original) The audio testing device of claim 152, wherein the communication port  
2 comprises a port for connection to an external data processing device providing a user interface  
3 for the hearing test program.

1 154. (Original) The audio testing device of claim 152, wherein the audio transducer comprises a  
2 speaker mounted on a headset.

1 155. (Original) The audio testing device of claim 152, wherein the audio transducer comprises  
2 stereo speakers mounted on a headset.

1 156. (Original) The audio testing device of claim 152, including a port adapted to couple a  
2 removable data storage device to the data processor, and resources for playing an audio data  
3 product stored in the removable data storage device.

1 157. (Original) The audio testing device of claim 152, including a battery, and wherein the data  
2 processor and audio transducer are coupled to the battery.

1 158. (Original) The audio testing device of claim 152, including a headset, and wherein the data  
2 processor, data storage medium, communication port and audio transducer are mounted on the  
3 headset.

1 159. (Original) The audio testing device of claim 152, wherein the customer hearing profile  
2 comprises coefficients of a transfer function to transform an audio data product according a  
3 hearing characteristic of a customer.

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1 160. (Original) The audio testing device of claim 152, wherein the customer hearing profile  
2 comprises an identifier of transfer function to transform an audio data product according a  
3 hearing characteristic of a customer.

1 161. (Original) The audio testing device of claim 152, wherein the customer hearing profile  
2 comprises an identifier of a transfer function and coefficients of the identified transfer function to  
3 transform an audio data product according a hearing characteristic of a customer.

1 162. (Original) The audio testing device of claim 152, wherein the customer hearing profile  
2 includes a value indicating listening conditions in which a customized audio data product is to be  
3 played.

1 163. (Original) The audio testing device of claim 152, wherein the customer hearing profile  
2 includes a value indicating a hearing characteristic of a customer for whom a customized audio  
3 data product is to be played.

1 164. (Original) The audio testing device of claim 152, wherein the customer hearing profile  
2 includes a specification of psycho-acoustic characteristics of a customer for whom a customized  
3 audio data product is to be played..

1 165. (Original) The audio testing device of claim 152, wherein the customer hearing profile  
2 includes an audiogram characterizing a customer for whom a customized audio data product is to  
3 be played.

1 166. The audio testing device of claim 152, wherein the customer hearing profile includes  
2 software defining a transfer function for producing a customized audio data product.

1 167. (Original) An audio testing and playback device comprising:  
2 a data processor;  
3 data memory coupled to the data processor;  
4 a communication port, coupled to the data processor;

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5 an audio transducer, coupled to the data processor;  
6 a hearing test program stored in the data memory, the hearing test program comprising  
7 logic used for execution of a hearing test using the communication port to produce hearing  
8 profile data for use in production of a hearing profile of a customer; and  
9 a customized audio data product stored in the data memory, the customized audio data  
10 product comprising an audio data product customized using the hearing profile.

1 168. (Original) The audio testing and playback device of claim 167, wherein the  
2 communication port comprises a port for connection to an external data processing device  
3 providing a user interface for the hearing test program.

1 169. (Original) The audio testing and playback device of claim 167, wherein the audio  
2 transducer comprises a speaker mounted on a headset.

1 170. (Original) The audio testing and playback device of claim 167, wherein the audio  
2 transducer comprises stereo speakers mounted on a headset.

1 171. (Original) The audio testing and playback device of claim 167, including a port adapted to  
2 couple a removable data storage device to the data processor, and resources for playing an audio  
3 data product stored in the removable data storage device.

1 172. (Original) The audio testing and playback device of claim 167, including a battery, and  
2 wherein the data processor and audio transducer are coupled to the battery.

1 173. (Original) The audio testing and playback device of claim 167, including a headset, and  
2 wherein the data processor, data memory, communication port and audio transducer are mounted  
3 on the headset.

1 174. (Original) A method for conducting a hearing test, comprising:  
2 providing a headset having stored therein audio test software;

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- 3 coupling the headset to a data processor having a user interface;  
4 executing a test using the audio test software and the user interface to develop a hearing  
5 profile;  
6 producing a customized audio data product using the hearing profile; and  
7 playing the customized audio data product on the headset.

1 175. (Original) The method of claim 174, including storing the hearing profile on the headset,  
2 and wherein the step of producing a customized audio data product comprises processing an  
3 audio data product using the hearing profile stored in the headset.

1 176. (Original) The method of claim 174, including storing the hearing profile in a remote site.

1 177. (Original) The method of claim 174, including producing the customized audio data  
2 product in a remote site.

1 178. (Original) The method of claim 174, including storing the customized audio data product  
2 on a machine readable medium, and coupling the machine readable medium to the headset.

1 179. (Original) The method of claim 174, including storing the customized audio data product  
2 on a portable data storage device, and coupling the portable data storage device to the headset.

1 180. (Original) An article of manufacture comprising:  
2 a data storage medium configured for connection to, and for disconnection from, an audio  
3 playback device; and  
4 a customer hearing profile stored in the data storage medium, the hearing profile  
5 comprising data generated based on hearing characteristics of a particular customer.

1 181. (Original) The article of claim 180, wherein the customer hearing profile comprises  
2 coefficients of a transfer function to transform an audio data product according a hearing  
3 characteristic of a customer.

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1 182. (Original) The article of claim 180, wherein the customer hearing profile comprises an  
2 identifier of a transfer function to transform an audio data product according a hearing  
3 characteristic of a customer.

1 183. (Original) The article of claim 180, wherein the customer hearing profile comprises an  
2 identifier of a transfer function and coefficients of the identified transfer function to transform an  
3 audio data product according a hearing characteristic of a customer.

1 184. (Original) The article of claim 180, wherein the customer hearing profile includes a value  
2 indicating listening conditions in which a customized audio data product is to be played.

1 185. (Original) The article of claim 180, wherein the customer hearing profile includes a value  
2 indicating a hearing characteristic of a customer for whom a customized audio data product is to  
3 be played.

1 186. (Original) The article of claim 180, wherein the customer hearing profile includes a  
2 specification of psycho-acoustic characteristics of a customer for whom a customized audio data  
3 product is to be played.

1 187. (Original) The article of claim 180, wherein the customer hearing profile includes an  
2 audiogram characterizing a customer for whom a customized audio data product is to be played.

1 188. (Original) The article of claim 180, wherein the customer hearing profile includes software  
2 defining a transfer function for producing a customized audio data product.

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